

# Board of Governors

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## Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran

*Report by the Director General*

1. On 31 August 2006, the Director General reported on the implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran (Iran) (GOV/2006/53). This report covers developments since that date.

### **A. Suspension of Enrichment Related Activities**

2. Since 31 August 2006, centrifuges in the single machine test stand, and the 10-machine, 20-machine and first 164-machine cascades at the Pilot Fuel Enrichment Plant (PFEP) have been run, mostly under vacuum, with UF<sub>6</sub> being fed during intermittent periods. The installation of the second 164-machine cascade was completed and, on 13 October 2006, testing of the cascade with UF<sub>6</sub> gas was begun. Between 13 August and 2 November 2006, a total of approximately 34 kg of UF<sub>6</sub> was reported by Iran as having been fed into the centrifuges and enriched to levels below 5% U-235.

3. Between 16 and 18 September 2006, the Agency performed a physical inventory verification (PIV) at PFEP, the evaluation of which remains open pending receipt of sample results.

4. The results of the analysis of the environmental samples taken by the Agency to confirm Iran's statement in June 2006 that it had achieved enrichment levels of 5% U-235 in a test run in the first 164-machine cascade at PFEP are still pending (GOV/2006/53, para. 5). Iran has not provided the Agency full access to operating records concerning product and tail assays which the Agency requires to complete its auditing activities.

5. Iran continues to decline to discuss the implementation of remote monitoring at PFEP, a proposal made by the Agency to compensate for the fact that measures normally used for verification at operational enrichment facilities (e.g. limited frequency unannounced access) are not feasible at PFEP (GOV/2006/53, para. 6).

6. On 5 November 2006, design information verification (DIV) was carried out at the Fuel Enrichment Plant (FEP) at Natanz, where construction was ongoing.

## **B. Suspension of Reprocessing Activities**

7. The Agency has been monitoring the use of hot cells at the Tehran Research Reactor (TRR) and the Molybdenum, Iodine and Xenon Radioisotope Production Facility, and the construction of hot cells at the Iran Nuclear Research Reactor (IR-40), through inspections, DIV and satellite imagery. There are no indications of ongoing reprocessing activities at those facilities, or at any other declared facilities in Iran.

## **C. Heavy Water Research Reactor**

8. Since 31 August 2006, the Agency has been monitoring through satellite imagery the construction of the IR-40 reactor, which, along with the construction of associated buildings, has been continuing.

## **D. Outstanding Issues**

9. On 16 October 2006, the Agency wrote to Iran referring to the long outstanding verification issues relevant to Iran's nuclear activities, and to the fact that Iran had not addressed those issues or provided the necessary transparency to remove uncertainties associated with some of its nuclear activities. In its letter, the Agency urged Iran to provide all the necessary information and required access to facilitate the resolution of all long outstanding verification issues. In its reply of 1 November 2006, Iran stated, *inter alia*, that it "is prepared to remove ambiguities, if any, and gives access and information in accordance with its Safeguards Agreement". With regard to the outstanding issues, Iran referred to its letter of 27 April 2006, in which it had "declare[d] its preparedness to resolve the remaining issues providing timetable, within next three weeks, provided that the nuclear dossier is returned back in full in the framework of the Agency".

### **D.1. Enrichment Programme**

#### **D.1.1. Contamination**

10. There has been no further progress on the resolution of the contamination issues referred to in GOV/2006/53, para. 11 (i.e. the sources of low enriched uranium particles, and some high enriched uranium (HEU) particles, found at locations where Iran has declared that centrifuge components had been manufactured, used and/or stored). In addition, clarification is still required of the particles of natural and high enriched uranium which were found in the samples taken from equipment at a technical university in January 2006 (GOV/2006/53, para. 24).

#### **D.1.2. Acquisition of P-1 and P-2 Centrifuge Technology**

11. Iran has not made available to the Agency any new information concerning Iran's P-1 or P-2 centrifuge programme (GOV/2006/53, paras 12–13).

### **D.2. Uranium Metal**

12. Iran has still not provided a copy of the 15-page document describing the procedures for the reduction of UF<sub>6</sub> to uranium metal and the casting and machining of enriched and depleted uranium metal into hemispheres (GOV/2005/87, para. 6). The document was resealed by the Agency in August 2006.

### **D.3. Plutonium Experiments**

13. The Agency has continued to seek clarification from Iran about its plutonium separation experiments (GOV/2006/53, paras 15–17). Iran has not provided sufficient clarification of the outstanding issues concerning these experiments and has stated that no other relevant information is available.

14. As reflected in the Director General's previous report (GOV/2006/53, para. 17), the results of the analysis of environmental samples taken at the Karaj Waste Storage Facility (where containers which had been used to store depleted uranium targets used in the experiments are located) indicate the presence of HEU particles. In response to the Agency's request of 15 August 2006 for information about the source of the particles, and about the past use of the containers, Iran informed the Agency in a letter dated 6 September 2006 that the containers had been used for the temporary storage of spent fuel from TRR, which, in its view, could explain the presence of the HEU particles. Additional samples have been taken from other containers, located at the Tehran Nuclear Research Centre, which had also been used to store spent fuel from TRR. The results from these samples are still pending.

15. Under cover of the Agency's letter of 16 October 2006 (referred to in para. 9 above), Iran was provided with a detailed assessment of the results of further analysis of the samples taken from the containers at Karaj, and was requested to provide further clarification of the presence of the HEU particles and clarification of an additional finding of plutonium in the samples. On 13 November 2006, Iran provided a response to that request, which the Agency is currently assessing.

## **E. Other Implementation Issues**

### **E.1. Uranium Conversion**

16. In June 2006, Iran started at the Uranium Conversion Facility (UCF) a uranium conversion campaign involving approximately 160 tonnes of uranium ore concentrate. As of 7 November 2006, approximately 55 tonnes of uranium in the form of UF<sub>6</sub> had been produced during this campaign. All UF<sub>6</sub> produced at UCF remains under Agency containment and surveillance.

### **E.2. Other Matters**

17. There are no new developments to report with respect to the other implementation issues referred to in previous reports (GOV/2006/38, para. 14; GOV/2006/27, paras 19–20).

## **F. Transparency Measures**

18. Iran has not yet responded to the Agency's long outstanding requests for clarification concerning, and access to carry out further environmental sampling of, equipment and materials related to the Physics Research Centre (PHRC); nor has Iran provided the Agency with access to interview another former Head of the PHRC.

19. Iran has not expressed any readiness to discuss information concerning alleged studies related to the so-called Green Salt Project, to high explosives testing and to the design of a missile re-entry vehicle (GOV/2006/53, para. 26).

## **G. Summary**

20. Iran has been providing the Agency with access to declared nuclear material and facilities, and has provided the required nuclear material accountancy reports in connection with such material and facilities. However, Iran has not provided the Agency with full access to operating records at PFEP.

21. While the Agency is able to verify the non-diversion of declared nuclear material in Iran, the Agency will remain unable to make further progress in its efforts to verify the absence of undeclared nuclear material and activities in Iran unless Iran addresses the long outstanding verification issues, including through the implementation of the Additional Protocol, and provides the necessary transparency. Progress in this regard is a prerequisite for the Agency to be able to confirm the peaceful nature of Iran's nuclear programme.

22. The Agency will continue to pursue its investigation of all remaining outstanding issues relevant to Iran's nuclear activities, and the Director General will continue to report as appropriate.